FIELD TRIPS OF THE CLUB

TRIP OF AUGUST 6-8 TO MOUNT MARCY

Dr. Alfred Gundersen of the Brooklyn Botanic Garden gives the following report on the week end trip in the northern Adirondacks, including a climb of Mount Marcy with the joint leadership of himself and Dr. Lloyd Rider:

"I have been above timber line many times in Norway, in Switzerland and in the Rockies, but in the eastern states only on Mount Moosilauke, in the White Mountains. The thrill of Mount Marcy to the members of our party was very great, though near or beyond the limit of endurance to the older members.

"On the summit of Slide Mountain, in the Catskills, is a quotation from Burroughs, 'Here the words of man dwindle,' which would apply even more strongly to Marcy. Recommended as an antidote to race and war ideas."

"Remarkable resemblance between Norwegian and Mount Marcy alpines. Particularly interested to see the yellow lichen Rhizocarpon geographicum, which presumably covers all summits between New York, Alaska and Norway. The Norwegian Lycopodium Selago, larger and less green. Empetrum nigrum, Diapensia lapponica, Rhododendron lapponicum, and Vaccinium uliginosum, very similar in the two regions. The sudden change of vegetation on coming on the Summit of Marcy contrasts strongly with Norway conditions."

The party numbered ten, including Dr. Gundersen, Dr. Rider, Dr. George Wood and members of their families.

Trip of Sunday, August 29, to the Ellenville Ice Caves

Mr. Fred R. Lewis, leader of the trip to the Ice Caves on the Shawangunk Mountain, near Ellenville, N.Y., reports on it as follows:

"One of the objectives of this trip was fossil footprints (which Mr. Lewis had reported finding many years ago). We failed to locate them, but found fossil sea worms in North Gully. (Perhaps graptolites, which are recorded in the geological literature, as in the shales included in the Shawangunk Grit.) The Ice Caves are very interesting; there are five or six fissures, one

or two to ten feet wide and one 200 feet across. They are from 30 to 150 feet deep, with smaller fissures going to unknown depths. They are on the westerly slope of the mountain between Ellenville and Pine Bush, the same mountain that Sam's Point is on.

"We found a rare species of the *Hydnum* fungus, new to me, and so far unidentified. The mountain flora included as a prominent element *Solidago graminifolia*, 'Mountain Tea' the natives call it. There were two species of holly, *Ilex opaca* and *Ilex vomitoria*. Among the many lichens noted at the Ice Caves was an abundance of *Evernia furfuracea*, not a common species, and a few specimens of *Mycoblastus sanguinarius*, also rather infrequent.

TRIP OF AUGUST 29 TO WASHINGTON VALLEY AND WATCHUNG, N. J.

Thirteen members and 10 guests were present on this all-day excursion. Trips to this same locality under the same leadership in previous years had been in spring; this year's trip was the first one to this marvellously rich locality to study the summer aspect of the vegetation. Portions of the First Watchung (alt. 515 feet at this point) and of the second Watchung Mountain (alt. 552 feet at this point) were climbed, sometimes along old wood roads and at other times through the overgrown fields and tangled woods themselves. Among the interesting phanerograms observed were Hypopitys lanuginosa, Corallorhiza maculata, C. odontorhiza, Ilex verticillata var. padifolia, Chimaphila maculata, Vitis aestivalis, V. cordifolia, Gerardia purpurea, G. paupercula, Helianthus strumosus, Lappula virginiana, Lycopus americanus, Menispermum canadense, Aster schreberi, Monotropa uniflora, Mitchella repens, and Liatris spicata. In the shale and sandstone valley between these two Triassic basaltic ridges (alt. of valley about 304 ft.) were collected Cathartolinum medium, Polygala verticillata, Paspalum laeve, Sarothra gentianoides, Cynthia virginica, Veronicastrum virginicum, Doellingeria umbellata, and Helenium latifolium in great abundance, as well as the interesting naturalized exotics Salix purpurea, Elaeagnus umbellata, Berberis thunbergii, Pinus sylvestris, Hemerocallis fulva var. kwanso, Perilla frutescens var. crispa, and Coreopsis grandiflora var. pilosa. Indian-grass (Sorghastrum nutans) was at its prime,

and rendered the fields a spectacular sight. Seven species of tick-trefoil were identified, Desmodium paniculatum, D. rotundifolium, D. marylandicum, D. canescens, D. ciliare, D. nudiflorum, and D. grandiflorum. The differences in growth and structure between Cuscuta gronovii and C. coryli were pointed out. Among the interesting cryptograms identified were Osmunda spectabilis, Botrychium obliquum, B. virginianum, Selaginella abus, Diphyscium sessile, Fissidens taxifolius, Trichoglossum hirsutum, Clavaria pistillaris, Hypomyces hyalinus, Fistulina hebatica, Boletus felleus, Lycoperdon pyriforme, and Geaster hygrometricus. Interesting ecological lessons were observed in areas which were formerly fenced-off pastures and orchards the fences and fruit trees long since gone, but their sites now accurately marked by dense growths of certain berry-producing species of wild plants, the seeds of which had unquestionably been dropped there by perching birds when the fences and fruit trees were still extant. The kindness and courtesy of Mrs. Richard Moldenke in allowing members of the party to visit "Castle Elsinore," one of the very few Old World style castles to be found in America, was deeply appreciated.

H. N. MOLDENKE

Trip to the Green Mountains September 4, 5, and 6

Three members and 5 guests were present on some or all of the excursions which comprised this Labor Day week-end trip. Headquarters were established at Jamaica, Vt., and from here excursions were made by car and by foot to various portions of Windham, Bennington, and Windsor Counties, Vt., and Cheshire Co., N. H. Bromley Mountain was climbed to an altitude of about 3200 feet and a breath-taking view of Stratton and other majestic peaks obtained. On another day the old Coolidge homestead at Plymouth was visited and the lovely chain of lakes about Tyson. The intriguing mysteries of a northern sphagnum bog were explored. Among the interesting plants collected were Elymus canadensis, Andropogon provincialis, Asplenium viride, Camptosorus rhizophyllus, Circaea alpina, C. canadensis, Lobelia cardinalis, Spiranthes cernua, Rhus typhina f. laciniata, Sicyos angulata, Mnium punctatum

var. elatum, Fontinalis antipyretica var. gigantea, Solidago rugosa var. villosa, Rubus canadensis, R. pubescens, Viburnum cassinoides, Eupatorium purpureum var. maculatum, Coeloglossum bracteatum, Allium tricoccum, Scutellaria epilobifolia, Matteuccia struthiopteris, Bidens cernua, Sanguisorba canadensis, Scirpus cyperinus var. pelius, Peramium pubescens, Corydalis sempervirens, Coptis groenlandica, Dasystephana andrewsii, D. linearis, Equisetum palustre, Chrysosplenium americanum, Taxus canadensis, Aralia hispida, A. racemosa, Bilderdykia cilinodis, Dulichium arundinaceum, Mentha arvensis var. canadensis, Sorbus americana, Muhlenbergia sobolifera, Cicuta bulbifera, and. of course, the very abundant Lysimachia terrestris, Viburnum lantanoides, Lonicera canadensis, Aster acuminatus, Clintonia borealis, Cornus canadensis, and Streptopus roseus. In the larchsphagnum bog Sarracenia purpurea and var. heterophylla, Kalmia polifolia, Chamaedaphne calyculata, Chiogenes hispidula, Andromeda polifolia, Blephariglottis psycodes, Eriophorum virginicum, and Nemopanthus mucronata were found in great abundance. Among the clubmosses identified were Lycopodium flabelliforme, L. lucidulum, L. clavatum and var. monostachyon, L. annotinum, and L. obscurum and var. dendroideum. The kindness of Miss E. M. Kittredge and Mrs. F. F. Doubleday, of the Vermont Botanical Club, in guiding the party to some of the prize spots for rare species was deeply appreciated.

H. N. MOLDENKE

LABOR DAY WEEK-END TRIP TO THE PINE BARRENS OF NEW JERSEY

The objective of this trip was to visit some of the so-called "ghost towns," as well as some of the outstanding botanical localities of the Pine Barrens. The ghost towns were formerly actively engaged in the manufacture of bog iron, or associated industries. Some, like Lakehurst, survived by one means or another; others, like Atsion, are reported to be actually haunted by one or more ghosts, while still others, such as Calico, are now only place names on the map. We visited Mt. Misery, Hampton Furnace, Pleasant Mills (Sweetwater), West Mills, Batsto, "Washington," Jenkins Neck, Harrisville, and Martha in addition to those mentioned above. Besides these places.

Bispham's Mill Creek, Skits Branch, Nancy Geiffert's one time farm, and a large savanna along Mechescatauxin Branch were found to be profitable collecting places.

Any visit to the pine barrens finds it characterized by some botanical aspect such as the conspicuous flowering of some species. We noticed the frequency of Gerardia (purple and yellow), Polygala, Polygonella, Sabatia, Lobelia, Bidens, Liatris, Utricularia, Aster, Chrysopsis, Solidago, Lycopus, and Eupatorium. Species less frequent and perhaps more noteworthy were Decodon verticellaris, Bartonia penniculata, B. virginica, Breweria pickeringii, and Eupatorium resinosum. Two striking grasses of the wet places were Calamagrostis cinnoides, and Erianthus saccharoides. Such familiar favorites of the region as Lygodium palmatum, Schizaea pusilla, and Gentiana porphyrio, and Narthecium americana (Abama) were seen.

One of the pleasantest parts of the trip was a visit to the stockrooms of James Bassett and William Bassett who market certain pine barren plants through the florist trade. On Sunday night we saw some Kodachrome pictures of the pine barrens as they appear at other seasons.

JOHN A. SMALL

Trip of September 11 to Belmont Lake State Park

The field trip to Belmont Lake State Park, north of Babylon, L. I., led by Miss Farida A. Wiley of the Department of Education, American Museum of Natural History, proved to be very interesting. The trip followed around the lake in the Park and along Carlls River, the stream which enters it from the north and flows south into Great South Bay, for the study of wet forest and aquatic plants.

A notable feature of the fern flora is the presence of frequent stands of both species of the Chain Fern, Woodwardia (Anchistea) virginica, and Woodwardia (Lorinseria) areolata, along the well designed and well maintained Nature Trail, on the east side of the lake; and along the stream above and below it. The Massachusetts Fern, Aspidium simulatum, is also more abundant than at any other station I recall in our range. The New York Fern, Aspidium noveboracense, and the Cinnamon and Royal Ferns are also abundant.

An interesting inhabitant of the shores of the lake was Lythrum salicaria, the Purple Loosestrife, common along the Hudson but not hitherto recorded, as far as I know, from Long Island. It is said to have been transplanted by the Long Island State Park Commission's landscape gardeners, from the Hudson. It is doing very well, and already spreading naturally downstream, and will probably establish itself in fresh and brackish marshes around Great South and Moriches Bays in the course of time, which will add to summer floral associations.

In the brook, at the bridge west of the Nature Trail was found Callitriche palustris, and around the shores of the pond, where the water had fallen a little, stranded plants of Ludvigia palustris. Another interesting aquatic, which Miss Wiley found in the pond on Park Avenue, Babylon, at the south end of the Park, and which some of us found on the way home, in a partly dried pond on Grand Avenue, Wyandanch, north of the Park, was Heteranthera reniformis, the Mud Plantain, with small, kidney-shaped leaves, and pretty little bluish-white flowers, an attractive little plant. This pond at Wyandanch looks as if it would merit attention on another field trip next year, for a variety of aquatics. The region along this stream, rising north of the railroad at Wyandanch, following it south, through the dry pine and oak woods, reaching the brook wherever possible through a tangle of catbriar, to the lake, and south to the salt marshes on Great South Bay would give an interesting cross section of Long Island vegetation.

A stately adventive herbaceous plant, at the dam of the lake in the Park, was Artemisia absinthium, the Wormwood. The Nature Trail is worthy of close study, with many shrubs labelled. The inkberry, Ilex glabra is plentiful and well fruited. Around the north end of the lake are typical Leatherleaf bogs, with Drosera rotundifolia and Sarracenia purpurea. A well made path, the Belmont Trail, follows the stream south from the lake to another pond on Park Avenue, Babylon. It would make an easy and rewarding botanical ramble at any season of the year.

RAYMOND H. TORREY

Trip of September 12 to Bear Mountain

Seventeen persons attended the field trip of Sunday, September 13. The morning was spent on the Nature Trail and at the Trailside Museum at Bear Mountain. In the afternoon

the party botanized along the foot of the slope leading to the summit of Anthony's Nose. A fairly large colony of Xanthoxy-lum americanum, the Toothache Tree, was found on the slope between the highway and the Hudson, and a little north of the Bear Mountain Bridge, under conditions which indicated that it had been originally introduced. Large bunches of Vitis vulpina, the River-bank or Frost Grape, with their blue acid berries, festooned the banks, and in the woods and along the main highway several interesting plants were found, such as Bidens bipinnata, Chenopodium hybridum, Trichostema dichotomum, Acalypha virginica, Hedeoma pulegioides, Pilea pumila.

ARTHUR H. GRAVES

Trip of September 26 to Owen, New Jersey

Some 25 members of the Torrey Club and the American Fern Society parked their cars along a road near the tiny hamlet of Owen, Northern Sussex County. After passing several barbed-wire fences we proceeded to a fern survey at the large wooded swamp. The particular locality was not remarkable for its fern hybrids, probably because it is too densely wooded, and because of the extensive cattle grazing. However, two distinct *Dryopteris* hybrids of the *Boottii* type were found.

The most abundant fern was probably the "fructuosa" variety, usually described as Dryopteris spinulosa, and possibly a cross between D. intermedia and D. spinulosa. Also of interest was the presence of Dryopteris simulata, this being a new station for this species, although Mr. Edwards has found it several times in the country.

In the afternoon, under the leadership of Mr. Edwards, the party traveled across country to the region of Andover. There in a very restricted swamp several interesting fern species were found—Pellaea glabella together with P. atropurpurea; Athyrium pycnocarpon, the narrow-leaved spleenwort, which is decidedly rare in this state; Dryopteris goldiana, with a single plant of the goldiana x marginalis hybrid.

TRIP OF OCTOBER 22-24 TO MOHONK LAKE, N. Y.

The fall outing of the Torrey Club to this beautiful Shawangunk Mountain resort was enjoyed by 33 members and guests. In spite of unfavorable weather there was much of interest to be seen and done.

On both Friday and Saturday evenings there were three blossoms of the tropical night blooming cereus to be seen in the large Mohonk Greenhouse. This was a new sight to many of the group and was thoroughly enjoyed. There are three large plants, one of which is over sixty years old. Each summer they are kept outdoors from May until October where they bloom regularly, sometimes having as many as 29 blossoms in one night. The blossoms remain open only a few hours before wilting. They give off a rich heavy scent. The broadly flattened stem and absence of true leaves makes this cactus particularly noteworthy.

On the way to the greenhouse on Friday a noise was heard in a hemlock tree. A flashlight revealed an oppossum hanging on the under side of a low branch. In the corner of his mouth were the tail feathers of a junco, just disappearing from sight. Evidently he had caught the bird from its roosting place at the end of the branch.

Saturday morning was rainy. Seven completed a 4 mile hike along the northwest side of the mountain, passing through the deer paddock where about twelve deer and fawns were seen. A stop was made at the old log cabin which was built about 1770. In the afternoon some visited Sky Top Tower where the forest fire observer is stationed, while others enjoyed the extensive natural history library of the Smiley family.

On Saturday evening the leader projected a number of his Kodachrome lantern slides showing scenery around Lake Mohonk. Some of the scenes in the Mohonk garden and shots in the "sugar bush" were of particular interest.

On Sunday morning $3\frac{1}{2}$ miles were covered, including a visit to Rhododendron Swamp. On the way home there was a brief snow squall.

The following botanical notes seem worth recording. Various mosses were collected including some good specimens of Fontinalis gigantea, Polytrichum piliferum, Georgia pellucida and Thelia asprella (sp?). Liverworts were in fine condition; only the following genera were identified, Pallavicinia and Scapania. Cetraria fahlunensis var. frostii was especially beautiful in color because of its wet condition. Asplenium platyneuron and

Asplenium montanum were noted. Nyssa sylvaticum was found in fruit. The alleged date-like taste of the drupes was not detected. The only plant of Rhus vernix which is known on the estate was seen. Ilex verticillata and Ilex montana were observed in fruit. Adlumia fungosa seemed to be a new plant to some. The fruit of Gaultheria procumbens were especially large, and tasty! The following asters were noted, Aster acuminatus, lowrieanus, divaricatus, novae-angliae, vimineus and tradescanti. Solidago caesia was the only goldenrod found in bloom. The following species had gone to seed: Solidago graminifolia, latifolia, arguta, erecta, and nemoralis.

DANIEL SMILEY, JR.

TRIP OF DECEMBER 5 TO LAKEHURST, IN THE PINE BARRENS

The brooks in the Pine Barren area of Southern New Jersey, around Lakehurst, Ocean County, were seen by the members of the club to be running full of cranberries. Continued rains had flooded the cranberry bogs and floated the spoiled and many good berries missed by the pickers some weeks before, over the dams, and the dark, tea-colored streams, running over their banks, bore millions of the scarlet fruit.

Lichens, at this season, were of interest, and in good condition after wet weather. Some color was given, among flowering plants, by the slender, dark red, racemed fascicles, of the flower buds of the Stagger-bush, *Lyonia mariana*, and buds of the same color, in umbels, of the Sand Myrtle, *Leiophyllum buxifolium*.

Cladoniae were the chief object of study among the lichens, including tall, robust *C. sylvatica*, along edges of woods in swamps; *C. caroliniana*, ff. dilatata and dimorphoclada, *C. uncialis* and the common Pine Barren cladina, *C. tenuis*, always identifiable by its frequent fertile condition, with numerous tiny brown apothecia, whereas all the other larger, densely branching species of this genus in the Barrens are sterile. *C. squamosa*, f. levicorticata, m. rigida, was, as usual in the Barrens, frequent, and it seems to flourish there, although it is very widely spread in eastern North America, occurring on the high summits of the Adirondacks, New England, Maine and Gaspe, and ranging in altitude from a few feet above tide to over 5,000 feet.

One of the best finds among the Cladoniae was another station for *C. floridana*, in the smooth f. esquamosa. The extension of the known range of this species in the past ten years has been interesting, and suggestive that many reported plant ranges may be incorrect, owing to lack of extensive search by botanists acquainted with them. Plants from North Carolina and Alabama, under the name of *C. santensis*, b. beaumontii, described by Tuckerman, in his Synopsis of North American lichens, 1882, probably included what is now defined as *C. floridana*, according to C. A. Robbins, in Rhodora, July, 1927, in a paper resolving confusion among *C. floridana*, santensis and beaumontii. Plants from South Carolina, collected by S. C. Ravenel, sent to Tuckerman, and named *C. santensis* by him, also were C. floridana.

C. beaumontii is not reported north of North Carolina. I found it in a cypress swamp at Manteo, N. C., in 1936. c. Santensis, long unknown north of South Carolina, has lately been found in many places in Ocean, Atlantic, and Burlington Counties, N. J. C. floridana, named for its originally known stations in Florida, was known only along the coastal plain north to Maryland and Massachusetts up to 1927, when Robbins wrote his paper in Rhodora. I have found it since in half a dozen places in southern New Jersey, and in two places on Long Island. But the most surprising new location, 70 miles from the coastal plain to which Robbins and others regarded it as limited, was on Shawangunk Mountain, near High Point, Sullivan County, N. Y. It was found, by the writer, September, 1937 in ff. esquamosa and typica, along blueberry pickers' paths for half a mile on the way from the end of the fire truck road, below the fire tower, toward the Ice Caves, at an altitude of about 2,100 feet.

The occurrence of what had been supposed to be a coastal plain Cladonia, so far from and above the sea, suggests speculation as possible reasons. One might suppose analogies in the presence on the Shawangunks, on Gertrude's Nose, near Lake Minnewaska, at 1500 feet, of *Corema Conradii*, also generally a coastal plain plant; and of *Chamaecyparis thyoides* in high swamps on Kittatinny Mountain, N. J., at 1600 feet, although it is generally limited to the swamps and stream courses of the coastal plain from New Hampshire to Delaware. To invoke

extension of the sea coast in recent geological times to explain these curious stations, would do violence to the geological record but the occurrence of three plants, a gymnosperm, an angiosperm and a lichen, in such stations, far from normal ranges, is intriguing.

Easter Field Trip to Wilmington, North Carolina April 16–18, 1938

The Southern Appalachian Botanical Club, and the Torrey Botanical Club, will join in an Easter field trip in the vicinity of Wilmington, N.C., April 16–18. It will be under the leadership of Dr. B. W. Wells, of Raleigh, N.C., who offers the following itinerary:

Saturday, April 16, meet at 9 A.M., in the lobby of the Cape Fear Hotel, Wilmington, N.C. Trip to Southport with stops en route to study wire grass savannahs, pocosins (shrub bogs), station for *Dendrium buxifolium*. Lunch at Southport. Afternoon, excursion to Fort Caswell, salt marshes, low dunes on south facing beach;—weather and tide permitting, trip to Smith Island.

Sunday, April 17, leave Cape Fear Hotel, at 9 A.M., for Burgaw, N.C., 25 miles north of Wilmington; visit the great Angola Bay, a peat bog 15 miles wide, and the Big Savannah, perhaps the finest example of the savannah type of community in the South. Visit White Lake, of supposed meteoric origin, near Elizabethtown.

Monday, April 18, leave hotel at 9 A.M. for Carolina Beach, stopping at Greenfield Park, with cypress-filled lake, and studying the xeric vegetation (*Selaginella acanthonota* and other peculiar species) of old bars on the way. Spend afternoon in survey of vegetation of lower Cape Fear Peninsula, which will include the recent evidence of Wells and Shunk showing the major role of sea spray in determining the nature and form of dune plants, rather than the wind per se. A transect of the peninsula will be studied, to note recent physiographical studies recorded by the vegetation. *Dionaea* may be seen at many places.

It would require leaving New York early Friday, April 15, or Thursday evening, April 14, to reach Wilmington for the start Saturday morning; and those wishing to reach home on Tuesday, April 19, could leave the party Monday afternoon or stay over another day as desired. The shortest automobile route is via Route 25 to Camden, N.J. then to Pennsville Ferry, Route 13 through Delaware, Maryland and Virginia to Prince Charles, ferry to Norfolk, and Route 17 via Windsor and Washington, N.C., to Wilmington.